Remarks

Claims 1-15 were pending in the application and all of the pending claims were rejected for reasons discussed below. Claims 10-15 have been withdrawn from consideration without prejudice or disclaimer to the subject matter contained therein. Claims 16-44 have been added. Claims 1-9 and 16-44 are pending after entry of the amendment with claims 1, 16, 29, 37 and 43 being the independent claims.

Initially it is pointed out that the Applicant submitted IDS'/1449s that were received by the Patent Office on (1) July 17, 2001, (2) June 26, 2002, and (3) January 27, 2003. The Applicant submits copies of the postcards and 1449s for the convenience of the Examiner. The 1st 1449 was two pages – the first page listed US references labeled AA-AI and foreign references labeled BA-BE, and the 2nd page listed US references labeled AJ-AQ. The 2nd 1449 included 2 pages – the first page included publications labeled CA-CH and the 2nd page included publications labeled CI-CM. The 3rd 1449 included publications CN-CS. Enclosed with the Office Action dated March 30, 2004 were signed and initialed copies of ONLY the 2nd page of both the first and second 1449s. The Examiner has not provided signed and initialed copies of the 1st page of the 1st 1449, the 1st page of the 2nd 1449 or the 3rd 1449. Accordingly, there is currently no evidence that the Examiner has ever considered references labeled AA-AI, BA-BE, CA-CH or CN-CS. The Applicant requests the Examiner to review his file to determine if he has reviewed these references and if he has to provide the Applicant with signed and initialed copies of the 1449s.

At the same time, the Applicant will proceed as if these references were lost and are not currently part of the file and will plan to re-submit these references, along with some additional references, an SB-08, and an IDS in the near future.

The Examiner restricted the claims as being directed to two patentable distinct species, a first embodiment capturing claims 1-9 and a second embodiment capturing claims 10-15. During a teleconference with the Examiner the undersigned attorney elected the species directed

to the first embodiment (claims 1-9) and withdrew claims 10-15 from consideration. The Applicant formally elects embodiment 1 (claims 1-9).

The Examiner rejected:

- claims 1-5 and 9 under 35 USC 103(a) as being unpatentable over *Safadi (US Patent 6,487,721)* in view of *Haskell et al. (US Patent 5,687,095)*;
- claim 7 under 35 USC 103(a) as being unpatentable over *Safadi* and *Haskell et al.* in view of *Zhang et al. (US Patent 6,611,624)*; and
- claim 8 under 35 USC 103(a) as being unpatentable over *Safadi*, *Haskell et al.* and *Zhang et al.* in view of *Seo et al. (US Patent 6,208,688).*

Initially the Applicant points out that the Examiner did not provide a rejection for claim 6. As the Examiner noted claims 1—9 were rejected on the Office Action Summary Sheet, the Applicant will treat the claim as if it had been rejected based on a combination of the above noted references. The Applicant respectfully traverses the rejection of claims 1-9 as it is submitted that claims 1-9 as well as the newly added claims (16-42) are patentable over the cited references for at least the following reasons.

Independent claim 1 is directed to a method for inserting a digital media advertisement in a digital multiplexed stream. The method includes computing a rate profile associated with a program stream. The digital media advertisement is compressed according to the computed rate profile. The compressed digital media advertisement is inserted in the digital multiplexed stream at an advertising opportunity in the program stream.

It is submitted that none of the cited references disclose or suggest the embodiment recited in claim 1. As noted by the Examiner on page 4 of the Office Action, *Safadi* "does not teach the computing of the rate profile." The Examiner relies on *Haskell et al.* for teaching "the computing of the rate profile (bit rate) for input into a re-quantization step in order meet a desired output rate signal and buffer status (Col 4 Lines 38-55, Col 5 Lines 17-50)."

The Applicant respectfully submits that *Haskell et al.* do not disclose, teach or suggest computing a rate profile of a program stream, as required by claim 1. Rather, *Haskell et al.* disclose systems for adjusting the rate of video being transmitted. That is, the video is received at one transmission rate and is modified to another rate (higher or lower). As the rate of both the incoming and outgoing program stream is known, there is no reason to compute the rate profile of the program stream as required by claim 1.

The disclosure, and specifically the passages referred to by the Examiner, concentrate on a rate reduction system 100. The system has known input 101 rates and output 116 rates. The system 100 includes a rate control circuit 113 that generates a rate control signal based on input 112 from a transmission buffer 111 and provides the rate control signal 114 to a DCT coefficient processor 107 which gracefully degrades the video quality. This rate control signal and rate control circuit clearly has nothing to do with a rate control profile of a program stream as required by claim 1. Thus, even assuming that there was motivation to combine the references (without conceding or acknowledging this), the combination would not result in the embodiment of claim 1.

Moreover, the Examiners motivation to combine references is erroneous. That is, the Examiner states that it "would have been obvious to ... combine the advertisement insertion method of Safadi with the bit rate computing method of Haskell in order to re-quantize the advertisement to meet a desired output rate signal and buffer status". The Applicant points out that neither the claimed embodiment nor *Safadi* has anything to do with re-quantizing in order to meet a desired output rate signal and/or buffer status.

The Examiner does not rely on the other references for disclosing the elements delinquent from *Safadi* and *Haskell et al.* For at least the foregoing reasons it is submitted that claim 1 is clearly patentable over the art of record. Claims 2-9 depend from claim 1 and are submitted to be patentable for at least the reasons addressed above with respect to claim 1 and for the further features recited therein.

Independent claim 16 is directed to a method for inserting an advertisement into a statistically multiplexed stream. The method includes computing a program stream rate profile for a program stream within a statistically multiplexed stream. An avail rate profile is generated

for an avail within the program stream. The avail rate profile is based on the program stream rate profile. An advertisement is compressed in accordance with the avail rate profile. The compressed advertisement is inserted in the avail within program stream.

It is submitted that none of the cited references disclose, teach or suggest the embodiment recited in claim 16. For example, none of the references disclose, teach or suggest computing a program stream rate profile for a program stream within a statistically multiplexed stream or generating an avail rate profile based on the program stream rate profile. It is thus submitted that claim 16 is patentable over the art of record. Claims 17-28 depend from claim 16 and are therefore submitted to be patentable over the cited references for at least those reasons described with respect to claim 16 and for the further features recited therein.

Independent claim 29 is directed to a system for inserting an advertisement in a statistically multiplexed stream. The system includes a rate profiler to determine a program stream rate profile associated with a program stream within a statistically multiplexed stream and an avail rate profile for an avail within the program stream. A video compressor compresses an advertisement according to the avail rate profile. A video inserter inserts the compressed advertisement into the program stream.

It is submitted that none of the cited references disclose, teach or suggest the embodiment recited in claim 29. For example, none of the references disclose, teach or suggest computing a rate profiler to determine a program stream rate profile associated with a program stream within a statistically multiplexed stream and an avail rate profile for an avail within the program stream. It is thus submitted that claim 29 is patentable over the art of record. Claims 30-37 depend from claim 29 and are therefore submitted to be patentable over the cited references for at least those reasons described with respect to claim 29 and for the further features recited therein.

Independent claim 37 is directed to a method for inserting advertisements into a statistically multiplexed transmission stream containing a plurality of program streams with a plurality of advertising opportunities. The method includes determining a first avail rate profile for a first avail within a first program stream, wherein the first avail rate profile is based at least

in part on a first program stream rate profile for the first program stream and determining a second avail rate profile for a second avail within a second program stream, wherein the second avail rate profile is based at least in part on a second program stream rate profile for the second program stream. A composite avail rate profile is generated based on the first avail rate profile and the second avail rate profile. A first advertisement rate profile is assigned to the first avail and a second advertisement rate profile is assigned to the second avail. The first advertisement rate profile is not limited by the first avail rate profile and the second advertisement rate profile is not limited by the second avail rate profile. A combined first advertisement and second advertisement rate profile is limited by the composite avail rate profile. The first advertisement is compressed according to the first advertisement rate profile and the second advertisement is compressed according to the second advertisement rate profile. The compressed first advertisement is inserted in the first avail and the second advertisement is inserted in the second avail.

It is submitted that none of the cited references disclose, teach or suggest the embodiment recited in claim 37. For example, none of the references disclose, teach or suggest determining a first and second avail rate profile, generating a composite avail rate profile, assigning first and second advertisement rate profiles that are not limited by the first and second avail rate profiles, and a combined first advertisement and second advertisement rate profile limited by the composite avail rate profile. It is thus submitted that claim 37 is patentable over the art of record. Claims 38-42 depend from claim 37 and are therefore submitted to be patentable over the cited references for at least those reasons described with respect to claim 37 and for the further features recited therein.

Independent claim 43 is directed to a system for inserting advertisements into a statistically multiplexed transmission stream containing a plurality of program streams with a plurality of advertising opportunities. The system includes a statistical multiplexer capable of determining a first avail rate profile for a first avail within a first program stream and a second avail rate profile for a second avail within a second program stream. A video compressor capable of compressing a first advertisement and a second advertisement at an aggregate rate profile which is less than or equal to sum of the first avail rate profile and the second avail rate

profile. A video inserter capable of inserting the compressed first advertisement in the first avail and the second compressed advertisement in the second avail.

It is submitted that none of the cited references disclose, teach or suggest the embodiment recited in claim 43. For example, none of the references disclose, teach or suggest a statistical multiplexer capable of determining a first avail rate profile for a first avail within a first program stream and a second avail rate profile for a second avail within a second program stream, or a video compressor capable of compressing a first advertisement and a second advertisement at an aggregate rate profile which is less than or equal to sum of the first avail rate profile and the second avail rate profile. It is thus submitted that claim 43 is patentable over the art of record. Claim 44 depends from claim 43 and is therefore submitted to be patentable over the cited references for at least those reasons described with respect to claim 43 and for the further features recited therein.

Conclusion

For the foregoing reasons, Applicant respectfully submits that claims 1-9 and 16-44 are in condition for allowance. Accordingly, early allowance of claims 1-9 and 16-44 is earnestly solicited.

If the Examiner believes that a conference would be of value in expediting the prosecution of this Application, the Examiner is hereby invited to contact the undersigned attorney to set up such a conference.

Respectfully submitted,

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